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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,652	03/17/2004	Alan Smithies	15880.10026	2651

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EXAMINER

CAMERON, ERMA C

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/708,652	Applicant(s) SMITHIES, ALAN	
	Examiner Erma Cameron	Art Unit 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16, 17, 20 and 21 is/are allowed.
- 6) ☒ Claim(s) 1-15 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-6 and 8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by EP 726348.

'348 teaches applying a stiffening agent such as PAI (3:14-17) to a porous fibrous substrate such as an aramid substrate (see Example 1) to make a filter.

The material is then pleated at 200-250 degrees C (328-418 degrees F) (4:39-41). The operating temperature is as low as 200 degrees C (328 F) (2:33-39) or as high as 365 C (625 F).

If the pleating occurred at 250 degrees C (418 F) and the operational T is 240 C (400F), the process of '348 meets both the application (operational) T over 375 F and pleating at a higher T than the operating T.

Because '348 uses the same materials and forms the filter by the same processes, the filter formed by '348 must inherently possess the same capabilities as applicant's claimed filter, including the ability to withstand the same number of cleaning pulses.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-15 and 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The conditions of the cleaning pulses is not described in the specification in such a way that the conditions of the cleaning pulses is clear. Only one PAI resin on one type of aramid media is described in Example 1, and the filter is described as being exposed to industrial conditions in a test baghouse. The limitation of “capable of withstanding at least 100,000 cleaning pulses at the application temperature” would allow for the cleaning pulses to be at low air pressures and low application temperatures, allowing for less stressful conditions than the one example that is in the specification.

5. Claims 1-15 and 19 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a filter of 2376 PAI resin on aramid media to withstand 110,000 cleaning pulses under the pulse conditions specified in Example 1, does not reasonably

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provide enablement for withstanding an infinite number of cleaning pulses with any polyimide coating on any substrate under any cleaning pulse conditions. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

One example of a specific resin on a specific substrate withstanding 110,000 cleaning pulses under the conditions specified in Example 1 does not support the breadth of the limitation “capable of withstanding at least 100,000 cleaning pulses at the application temperature”.

Drawings

6. A copy of Form 948, Notice of Draftsperson’s Patent Drawing Review, was sent out with the 6/6/2005 non-final rejection, but apparently did not successfully reach the applicant. Another copy is attached to this office action.

Claim Objections

7. Claims 15 and 21 are objected to because of the following informalities: it is not clear why [[-]] appear in these claims. The claims as originally filed did not contain a - , and therefore there is no reason to delete a - .

Appropriate correction is required.

Allowable Subject Matter

8. Claims 16-17 and 20-21 are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not disclose nor suggest making a filter by treating and curing a calendared substrate with a polyetherimide or polybismaleimide, and then pleating the treated substrate at a temperature higher than the filter operating temperature will be.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erma Cameron whose telephone number is 571-272-1416. The examiner can normally be reached on 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ERMA CAMERON
PRIMARY EXAMINER

December 27, 2005

Erma Cameron
Primary Examiner
Art Unit 1762